

## ABSTRACT

5 The present invention addresses the need to improve the yields of viral vectors  
when grown in cell culture systems. In particular, it has been demonstrated that for  
adenovirus, the use of low-medium perfusion rates in an attached cell culture system  
provides for improved yields. In other embodiments, the inventors have shown that there  
is improved Ad-p53 production with cells grown in serum-free conditions, and in  
particular in serum-free suspension culture. Also important to the increase of yields is the  
10 use of detergent lysis. Combination of these aspects of the invention permits purification  
of virus by a single chromatography step that results in purified virus of the same quality  
as preparations from double CsCl banding using an ultracentrifuge.